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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,380	11/13/2000	Jonathan Lenchner	YOR920000621US1	8649

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EXAMINER
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DASS, HARISH T

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/712,380

**Applicant(s)**

JONATHAN LENCHNER

**Examiner**

Harish T Dass

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 & 7-17 remain rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural

phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the

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"technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, *State Street* never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a

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§101 rejection finding the claimed invention to be non-statutory. See Ex parte Bowman, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, Claims 1-5 and 7-17 have no connection to the technological arts. None of the steps indicate any connection to a computer or technology.

Therefore, the claims are directed towards non-statutory subject matter. To overcome this rejection the Examiner recommends that Applicant amend the claims to better clarify which of the steps are being performed within the technological arts; for example: "computer is used to calculate average ..."

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-11 and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams (US 5,274,561) in view of Deitel & Deitel "C++ How to Program", Prentice-Hall, Inc., 1998; ISBN 0-13-528910-6 (hereinafter Deitel).**

Re. Claim 1 Adams et al (US 5,274,561) discloses an apparatus for increasing a fare (amount) to a rounded-off amount and determining a purchase price (taxi-fare) for said transaction, said purchase price including a fractional cost that exceeds a whole-unit

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amount [see entire document particularly, Abstract; Figures 2, 4-5; C1 L20-L40; C2 L38-L64; C3 L40-L45; C4 L60 to C4 L68], and appropriate assigned key for fare round-off actuation [C3 L40-L45; C4 L32-L46]. Adams, explicitly, does not disclose generating a random number, and

rounding said purchase price up or down to a whole-unit amount based on said random number.

However, Deitel discloses these features [see selected submitted page] to generate sequence of number repeatedly and round off the number to the nearest value to avoid floating numbers for ease of calculation, practicality and understanding. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the disclosures of Adam and Deitel to provide a random generator and rounding off function appropriately change the fair up/down fairly which can be repeated.

Re. Claims 2-5 & 7, Adams substantially, discloses the limitations for the claims; wherein said step of generating a random number is performed by a third party to said transaction and wherein said step of generating a random number is supervised by a third party to said transaction (a third party chauffeur, who manually adjusts the meter randomly to display the fare) [C3 L35 to C4 L46], wherein said step of generating a random number further comprises the step of obtaining a seller-generated increment value (value generated by operator by actuation of key [C4 L1-L20], and wherein said step of generating a random number further comprises the step of obtaining a buyer-

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provided offset value (passengers tip to driver) [C3 L65-L66]. wherein a buyer commitment to the transaction is obtained by means of currency submitted to a trusted third party prior to the generation of said random number [C1 L10-L41].

Re. Claim 6, Neither Adams nor Deitel explicitly discloses wherein a buyer commitment to the transaction is obtained by means of currency submitted to a vending machine.

However, this feature is will known and obvious (for example. Using a train ticket-dispensing machine accepts currency notes the rides uses and deposit in to get his/her ticket with a value of the trip which is normally rounded off to two digit. If this machine accept multi-currency (like ATM in Europe/Japan), the machine rounds off the number to two digit not 3, 4 or etc, based on the exchange rate round it up/down.)

Re. Claims 8-11, Adams, explicitly, does not disclose wherein said buyer-provided offset value is specified by the buyer in response to a query, and wherein said buyer-provided offset value is generated from a serial number obtained from paper currency provided by the buyer, and wherein said buyer-provided offset value is generated from a numeric identifier obtained from a product associated with said transaction, and wherein the seller generated random number is made without access to said buyer-provided offset value. However, it is well know that random generator generates number between 0 and 1 and the offset can be any number to provide non-repeating number and this number can be currency serial number, time or other entry.



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Re. Claims 15-17, these claims are rejected under the same rational as claims 1-14.

Re. Claims 18 and 23, Adams discloses a memory (Fig. 2 items 25-26, RAM & EPROM) that stores computer-readable code (EPROMs do store readable codes); and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code [Fig. 2 item 20], said computer-readable code configured to: determine a purchase price for said transaction (determining fare) [Fig. 1; C2 L35-L50], and said purchase price including a fractional cost that exceeds a whole-unit amount [C4 L51-L55]. Adams does not explicitly disclose generate a random number, and round said purchase price up or down to a whole-unit amount based on said random number. However, Deitel discloses these features [see selected submitted page] to generate sequence of number repeatedly and round off the number to the nearest value to avoid floating numbers for ease of calculation, practicality and understanding. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the disclosures of Adam and Deitel to provide a random generator and rounding off function appropriately change the fair up/down fairly which can be repeated.

Re. Claims 19-22, the claims are rejected under the same rational as claims 1-14.

**Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Deitel and Raymond J. Barber, Jr. (hereinafter Barber "Does**

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**Your Accounting Make Cents”, National Association of Cost Accounting, 1947) and Applicant’s declaration (Requirement for Information under 37 CFR 1.105 submitted 7/15/04 pages 11-12).**

Re. Claims 12-14, Adams discloses determining a purchase price (fare), N.C. for said transaction (DM 27.60) [C4 L1-L67], said purchase price including a fractional cost equal to  $C/100$  [DM 2.40] that exceeds a whole-unit amount, N.

Adams, explicitly, does not disclose generating a random number, and rounding said purchase price up to a price of  $N+1$  units with a probability of  $p$  and down to a price of  $N$  units with a probability of  $(1-p)$ , wherein the probability  $p$  equals  $C/100$  and

wherein said step of generating a random number is performed in a manner that prevents a bias towards a buyer or seller.

However, Deitel discloses generating a random number [see claim 1] to generate repeatable numbers in selected range. Additionally, Barber substantially discloses rounding purchase price to  $N+1$  and  $N$  (nearest dollar). Additionally, Applicant admits that rounding said purchase price up to a price of  $N+1$  units with a probability of  $p$  and down to a price of  $N$  units with a probability of  $(1-p)$ , wherein the probability  $p$  equals  $C/100$  is prior art. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the disclosures of Adams, Deitel and Barber to generate rounding off number to nearest practical number for easy of exchange and understanding.

Re. Claim 14, Adams discloses the step of obtaining a buyer commitment to the transaction (fare agreed to with the passenger) [C1 L19].

### ***Response to Arguments***

3. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding Applicant's argument of rejection 35 USC § 101, this calculation can be done by one skilled in the art the old fashion way by hand using statistics mathematics and probability theories such as Applicant's declaration (Remarks pages 11-12) and functions provided by C++ libraries. Further, response to Applicant's recited case *Gottshalk v. Benson*, the case is directed to an article not to intangible subject matter such as price.

Regarding Applicant's argument that Barber, Jr. does not disclose or suggest rounding off. It should be noted that the primary reference discloses rounding off (limitation) and secondary reference (Barber, Jr.) discloses the round off using probability. The motivation is to make a system repeatable producing the same numbers in a fair way.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

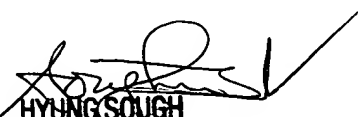
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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harish T Dass whose telephone number is 703-305-4694. The examiner can normally be reached on 8:00 AM to 4:50 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S Sough can be reached on 703-308-0505. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

  
HYUNG SOUGH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600